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ABSTRACT

Over the past decade there has been a growing movement to deinstitutionalize disabled persons, and educational services should be adapted to fit the needs of these persons. There has also been an enormous growth in the prevalence, scope, and diversity of community services that support them and their families. Increasing proportions of fiscal resources are being allocated to community services through sheltered workshops, group homes, early detection programs, public school programs, supervised apartments, and adult education programs. The delivery of these diverse community services has required the participation, cooperation, and collaboration of professionals trained in many different academic disciplines. Multidisciplinary and/or multi-agency approaches are being used in programming for the handicapped. The ultimate goal of these approaches has been to improve the services and support to the disabled by eliminating the fragmentation of services, increasing the coordination of actions between agencies, and improving communication between professionals. This paper: (1) identifies and articulates a set of generic knowledge and skills that define a core of competency clusters around which a preparation program could be organized; (2) describes several alternative methods for teaching the core competency clusters; and (3) discusses issues and challenges that remain for programs which choose to prepare such professionals. (JD)

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Preparing Educators to Serve Disabled Individuals in Diverse Community Settings: A Transdisciplinary Response

Introduction

Over the past decade there has been a revolution in the methods by which our society cares for disabled children and adults. In many states the well established network of large-scale, institutional "warehouses" for the physically and mentally disabled is being dismantled. "Deinstitutionalization" has become a rallying banner for a multitude of reforms that were needed to overhaul an antiquated, but entrenched, treatment approach. The personal needs and life circumstances of disabled persons have been swept from the deep recesses of our national consciousness and thrust into a more prominent position in our societal priorities through legislation and law.

As a consequence, there has been an enormous growth in the prevalence, scope and diversity of services in the community that support disabled individuals and their families in their quest to live more "normalized" lives. Whereas two decades ago most human and fiscal resources for the disabled were devoured by the institutional care system, today increasingly larger proportions of these resources are allocated to community services through sheltered workshops, group homes, early detection programs, public school programs, supervised apartments, adult education programs -- or combinations, modifications and variations of these. No singular service configuration, widely accepted, has yet emerged as the appropriate

community model. Rather, individual states and communities have developed service delivery systems and networks that reflect their perceived needs and uniquenesses.

The delivery of these diverse community services has required the participation, cooperation and collaboration of professionals trained in many different academic disciplines. It is not uncommon for a community's comprehensive system of services to include educators, social workers, physicians (from several different specialty areas), psychologists, nurses, opthalmologists and physical therapists. Some communities and agencies have attempted to create multi-disciplinary and/or multi-agency approaches to programming for the handicapped (Hart, 1977). The ultimate goal of these approaches has been to improve the services and support provided to the disabled by eliminating the fragmentation of services; increasing the coordination of actions between agencies; and, improving communication between professionals.

This ideal of collaboration between disciplines or agencies on behalf of the disabled is, however, not easily implemented. Attempts to operationalize and facilitate collaboration and linkages in a wide array of service contexts have been fraught with difficulties and failures (Mulford, Rogers, Halpert, Benson and Whetten, 1979). Within the context of services for the disabled, the most significant impediments to collaboration include: philosophical differences, educational background, organizational/institutional priorities, and factors related to the dynamics of small group processes (Allen-Meares and Pugach, 1982). The first two, we believe, emerge from the training and preservice preparation of professionals; whereas the last two factors are more problems of actual

implementation under a particular set of circumstances or in a distinct service context.

In addition to the need to manage and organize the formal network of services, practitioners have become increasingly aware of the resources and strengths that lie within the helping community itself that can be mobilized on behalf of the disabled. The strength and resiliency of families have proven remarkably valuable to treatment approaches. Mutual help and social support groups have emerged as major resources for disabled persons and their families. Similarly, service providers have become attuned to the positive role that can be played by extended family members, volunteer organizations and natural helping networks. Professionals who serve the disabled must be able to utilize and manage the complex network of formal services that exists; but, must also be prepared to make good use of the informal helping network.

As a consequence of the diversity and complexity of the community service network that exists to benefit the disabled, we believe that the continued growth and development of quality programs will require educational professionals with the following abilities:

- to function professionally in diverse community service configurations;
- to collaborate with professionals from other disciplines; and
- to mobilize informal and formal helping resources on behalf of the clients they serve.

To produce professionals with these skills, preservice training programs

will need to be more broad-based and eclectic than they tend to be now. The goal and focus for programs in the future should be to prepare individuals to handle and integrate ideas from several disciplines -- or to function in a transdisciplinary mode.

In the sections that follow we roam freely over a terrain that is characterized by obstacles. It is not our intent to create a detailed implementation plan that descibes the "how to" of developing a complete training program. Rather, we want to apply some preliminary, broad strokes to a canvas that has been relatively ignored. Thus, our goals are:

- to identify and articulate a set of generic knowledge and skills that define a core of competency clusters around which a preparation program could be organized;
- to describe several alternative methods for teaching the core competency clusters; and
- to discuss issues and challenges that remain for programs which choose to prepare such professionals.

Philosophy, Knowledge Base and Competencies

A program which prepares educators to work with disabled individuals in diverse settings needs to address three broad, but nevertheless critical, aspects of the training: (1) the philosophical tenets that underpin the program; (2) the knowledge base on which the program is constructed; and (3) the specific skills or competencies to be taught.

These three broad aspects of training are consistent with the framework for common education functions presented by Corrigan (1979) and the Commision on Programs and Projects (1980). The following sections discuss these dimensions.

Philosophy. Although many philosophies are relevant to the education of human services personnel, several seem particularly appropriate for working with handicapped individuals in diverse settings. It is essential that training programs articulate and clearly define the philosophical principles which they intend to impart to their students.

For example, humanism would provide the student with the view that all persons, including handicapped individuals, are worthy and deserve respect. Similarly, the ideas associated with normalization (although not in themselves a philosophy) promote the acceptance of handicapped individuals as full members of society who participate with others in daily life.

From the philosophy of pragmatism would flow the essential idea that handicapped and non-handicapped persons can influence, change and control their environment. Empiricism, on the other hand, emphasizes that knowledge is gained through the senses by means of observation and provides a basis for analyzing the functioning level of handicapped individuals as well as providing the basis for a scientific approach to intervention.

Thus, it could be argued that the philosophy of humanism and the ideals of normalization promote education for life in society whereas pragmatism and empiricism provide further bases of understanding handicapped individuals as well as the means of helping them attain maximum independence.

Positive professional and personal values in service providers can be

molded and enhanced through the philosophical foundations of a program. Humanism, for example, provides a philosophical framework for believing in the growth potential of persons and the inherent value and dignity of all human beings. It enriches the maxim that a disabled individual is a person, first and foremost, and handicapped second. An understanding of the philosophical systems of humanism, pragmatism and empiricism, along with the ideals associated with normalization, will help students become more competent practitioners with disabled persons.

It is our contention that individuals trained in what appear to be similar programs, but with different philosophical foundations, will emerge as distinctly different professionals. Thus, it is incumbent upon the program to determine what philosophical roots are most consistent with their ultimate image of a professional capable of working with the disabled.

Knowledge Base. The second area to be defined when building a program for practitioners who wish to work with disabled individuals in diverse settings is the knowledge base. Again, the ability of the program builders to clarify the knowledge foundation that underpins the programs will enhance their attempts to create individuals with particular skills and competencies. In general, the knowledge base for educators serving disabled individuals in diverse community settings should include the following four overlapping components: (1) theories of intervention with disabled persons, including learning theory, to guide practice; (2) empirical research findings in such areas as human development to inform practice with disabled individuals of all ages; (3) the structure and functions of organizations and their management, to guide practice in a

variety of human service settings; and (4) professional ethics, to enhance practice and decision-making.

Educators of disabled people should be able to discuss critical issues in education, have a firm knowledge of different approaches to intervention, and understand the relationships between handicapping conditions and intervention. Such educators should demonstrate that they can synthesize information obtained from related disciplines to augment assessment, program planning, intervention and monitoring of educational programs for disabled people.

Competencies. The final dimension of a training program is the articulation of a specific set of competencies to be taught -- those intervention skills that the professional must acquire and demonstrate before they are judged able to practice in the community. The competencies are the observable tasks that transform philosophy and knowledge into action.

We assume that there are certain competencies for the professional which, when acquired, will in turn promote positive growth and maximization for the handicapped person, e.g., to help the disabled person obtain relative independence and to facilitate their participation in community, recreational, vocational, domestic and general community settings. A specific set of competencies provides the professional with a means for selecting and translating philosophy and knowledge to enhance practice, and also, provides the trainers of student-practitioners with guideposts for measuring success--for individuals and for the program in general.

We have delineated seven clusters of competencies which we believe are generic to educating a heterogenous population of disabled individuals in a

wide variety of settings. The competency clusters that are offered below are not mutually exclusive nor presented in order of priority. Also, they have not been worded in sufficient detail to permit "competency-based" instruction; rather, we expect that taken collectively they will give form to the major content areas. We offer, therefore, the following perspectives not as the whole answer but as one step towards the answer. The seven clusters include:

1. Foundations of Services to the Disabled;

2. Physical and Developmental Characteristics of the Handicapped;

3. Curriculum Development for the Disabled;

4. Developing Service Plans for the Disabled;

5. Intervention-Implementation Strategies;

6. Advocacy for the Disabled; and

7. Knowledge Dissemination and Professional Development.

We believe that students will need extensive field experiences to demonstrate their acquisition of the competency clusters elaborated above. In addition, training programs should provide students with the opportunity to practice their skills with individuals with different handicapping conditions and in diverse service settings. For example, students might teach mildly handicapped individuals in adult education settings; train the profoundly handicapped in a group home; educate moderately and severely handicapped individuals in a vocational setting; and educate

multi-handicapped persons in a public school setting. The opportunity to experience an array of disabilities and service contexts is critical for students so that they can demonstrate that they are competent educators of disabled individuals in diverse settings. Lastly, we believe that these "hands-on" experiences should occur early in the training process and be sustained throughout the preparation period.

Another key to training competent educators, we believe, is the selection and recruitment of bright, able and dedicated persons who possess the potential to become high quality teachers of the disabled. Although this is "easier said than done," nevertheless, its importance should not be underemphasized. The quality of selection and recruitment will bear a direct relationship to the general success of the program.

The following are narrative descriptions of each competency cluster. The categorization of specific skills in a cluster varies and clusters are not all inclusive in regards to competencies.

Foundations of Service to the Disabled

Educators of disabled individuals should have a knowledge and understanding of (1) the historical and social context in which services are provided; and (2) the life span development of the handicapped person. Within the first area, educators should demonstrate knowledge of the following: historical trends and events related to services for the disabled; philosophical models (e.g., humanism and normalization) that underlie different service strategies; current legislation and litigation relative to the handicapped; economic issues of service development and

delivery; implications of different residential environments; approaches to assessment and intervention (e.g., developmental, ecological analysis, and learning theory); multi-culturalism; systems for classifying handicapping conditions; and, the roles of various disciplines and agencies in the provision of services. In addition, educators should demonstrate knowledge of service delivery models for: prevention, identification and early education; services to parents and families; vocational services; recreational/leisure services; residential services; educational services; and characteristics of comprehensive service delivery systems.

Furthermore, educators should be able to demonstrate a knowledge of lifespan development. Since practice with disabled individuals encompasses work with children, youth and adults, an understanding of the characteristics of persons at each stage of development is essential for sound practice (Bloom, 1980). Practitioners should be informed about the physical, cognitive, motoric, and language characteristics of persons at each stage of the life cycle. A comprehension of feeding, sleeping, and sensory patterns in childhood and bodily changes in youth and adulthood permits the practitioner to understand the capacities of individuals as they develop. Similarly, knowledge of activity levels and motor performance capacities can help the educator develop an understanding of the potential abilities of clients at various ages. Learning about the affective development of individuals permits an understanding of the normative emotional reactions of disabled persons. An understanding of intellectual and cognitive development allows the practitioner to gauge present functioning and areas of growth.

An appreciation of normative social and personality development enables the practitioner to understand the impact of parents and peers and their expectations about the social role behaviors of disabled and nondisabled individuals. Understanding the psychosocial stages of human growth enables the practitioner to be aware of the interrelationships between personal development and social forces (Erikson, 1963; Levinson, 1978). Accepting sexual development and fostering adjustment in disabled populations can help them lead more satisfying lives. Knowing the path of moral development is useful in promoting responsible social interaction.

Educators should have knowledge of the interrelationships between life span development and the onset and impact of disabling conditions. Practitioners should understand the differential effects of disabling conditions on children, youth and adults and their adaptive functioning. Knowledge of the impact of the handicapping conditions upon the receptivity and use of educational services is an area of competence to be developed.

Recommendation: The preparation of professionals for employment in diverse community settings serving the disabled should include (1) knowledge and understanding of the context of service delivery in diverse settings, and the role of educators and other professionals in the delivery of services in diverse settings; and (2) an understanding of the relationship between life span development and service needs.

Physical and Developmental Characteristics of the Handicapped

Educators should have knowledge about, and understanding of,

handicapping conditions and their relationship to educational assessment and intervention. Educators should be able to demonstrate and apply knowledge about (1) the physical/developmental assessment of disabled individuals; (2) physical management of motorically impaired individuals; and;, (3) first aid and emergency procedures.

In the area of physical/developmental assessment of disabled individuals, educators should have a knowledge and understanding of at least: the effect of prenatal, perinatal and postnatal factors and environment influences on the disabled; the educational implications of health and disease of the disabled; the role of the physician, nurse, physical therapist and occupational therapist in the total management of the disabled; the educational implications of seizures and seizure management; methods of detecting and accommodating for vision and hearing impairments; and, the relationship of assessment and intervention strategies to motor, communication/language, and/or cognitive delays and dysfunctions. Physical management of the motorically impaired person should include knowledge of: handling and positioning; principles of lifting, carrying and transfers; educational implications of oral-motor dysfunctions; and, toileting.

Educators should be able to use their knowledge of handicapping conditions and their treatment to communicate with a variety of specialists serving disabled persons. The educator should be able to gather and synthesize information from a variety of sources and incorporate it into effective intervention strategies.

Recommendation: Educators serving disabled persons should have an

understanding of the physical, medical and developmental characteristics of disabled individuals and should be able to relate these trends to assessment, program planning, and intervention. There should be an emphasis on the complementary roles of diverse professions (physicians, physical therapists, occupational therapists, etc.) in assessment, program planning and intervention. Opportunities for direct experience in gathering, synthesizing and using information from other professionals for the benefit of disabled persons should be provided.

Curriculum Development for the Disabled

In order to use their expertise as educators, practitioners who help disabled people in diverse settings need a knowledge of curriculum. Educators should demonstrate skills and knowledge in evaluating, selecting, implementing and adapting curriculum to meet the individual needs of learners. They should appreciate the relative strengths and weaknesses of various basic curriculum approaches -- such as the developmental, remedial ecological analysis, criterion referenced, norm referenced and performance referenced curriculum. Educators should be able to match curriculum approaches and content to the individual needs of particular learners. They should be proficient at adapting the curriculum performance requirements and materials to meet the needs of motorically, sensory and intellectually impaired people.

In addition to general skills in developing, evaluating, selecting and adapting curriculum, educators should have a basic knowledge of curriculum content areas and the skills to independently research and acquire an

in-depth knowledge of the curriculum areas for which they have responsibility. Automomously researching and acquiring a substantial knowledge of a curriculum content area is a particularly essential skill since the educator will likely interact with heterogeneous populations which will reflect individual and unique curriculum needs. Areas in which educators should have a basic knowledge of curriculum content include motor, cognitive, communication/language, reading, math, spelling, writing, recreational, vocational, domestic living, social, self-care, general community survival and sex education.

Educators should be skilled at working with other professionals with expertise in particular curriculum content areas, to develop and adapt curriculum to meet individual needs. For example, the educator should be able to synthesize and integrate input from physical and occupational therapists for the curriculum of motorically impaired people.

Recommendation: Educators of disabled people in diverse settings should have skills in evaluating, selecting, implementing and adapting curriculum which can be employed across curriculum content areas. They should have a basic knowledge of a wide variety of curriculum content and be adept at incorporating information from other professionals into the curriculum for individual learners. Educators should demonstrate that they have the skills and knowledge to independently research and develop in-depth knowledge of curriculum content areas.

Developing Service Plans for the Disabled

The basis for providing services to disabled individuals in most settings is a service plan. Depending upon the agency providing the help, service plans have different names. For example, Individual Education Plans (IEPs) are used in public school, special education programs. In contrast, group homes, supervised apartments, and work activity centers may use Individual Habilitation Plans (IHPs) or Individual Program Plans (IPPs). Service plans, under whatever name, typically have the common components of: a delineation of the functioning level of the clients; a statement of the annual goals; an articulation of short term objectives leading to each annual goal; a description of what services will be provided by whom; a date for the initiation and termination of services; specification of the intervention strategies to be employed; a schedule of periodic reviews of the plan during the service year; and, a process for evaluating of the plan at the end the service year. Service plans are usually developed by a group comprised of educators, parents, clients, and as needed, occupational therapists, physical therapists, psychologists, and social workers.

One professional, often the educator, plays the role of a case manager. The case management of an educational service plan typically involves: coordinating the implementation of the plan by the various professionals involved; periodically monitoring the progress of the plan and the client; and, evaluating the results of the plan at the end of the service period.

Educators of disabled individuals need to demonstrate that they can

competently develop and manage an individual service plan. Competencies required to develop service plans include: assessing the current functioning level of the client; setting and prioritizing goals; writing instructional objectives for each goal; translating instructional objectives into short-term task-oriented objectives; monitoring progress in relation to short-term objectives; synthesizing information from parents, the client and other professions into a cogent plan; conducting service plan meetings; and, evaluating the plan at the end of the service period.

Recommendation: Educators of disabled learners should acquire and demonstrate the competencies necessary to develop, implement and evaluate service plans. These competencies should be demonstrated in diverse service settings and across a variety of disabling conditions.

Intervention: - Implementation Strategies.

Educators should demonstrate competence in implementing, monitoring, and evaluating intervention strategies designed to achieve the annual goals and short-term objectives identified in the service plans of disabled individuals. Competence in the following areas should be demonstrated: designing intervention programs; directly implementing interventions strategies; training and monitoring others in implementing interventions; frequently assessing the effectiveness of interventions; changing interventions on the basis of assessment data; coordinating and monitoring interventions completed by other professionals; and, managing learning

environments.

In the area of designing and implementing interventions, educators should demonstrate competencies in: increasing the skills of learners (e.g., teaching learners to work at a faster rate or to complete a higher percentage of a task correctly); teaching new skills; reducing and eliminating inappropriate behaviors; maintaining and extending skills (i.e., ensuring that once a skill is learned it is consistently performed over an extended period of time); generalizing skills (i.e., ensuring that learners can perform skills across settings, people, tasks and cues to perform the skills); teaching concepts; using appropriate adaptive/assistive devices and devising interventions for learners impaired in motoric, sensory, and cognitive domains; selecting appropriate tasks and materials; and designing and implementing one-to-one and small group (two or more learners) interventions. The educator should demonstrate competency in directly implementing the interventions such that clients make progress towards goals and objectives.

Intervention strategies should be frequently assessed to determine their relative effectiveness. Based upon frequent assessments, decisions should be made as to whether an intervention should be continued because it is working, changed because it is not working or terminated because the learner has achieved the objective. The implementation of interventions directly related to the objectives detailed in a learner's service plan may be carried out by a variety of professionals. For example, a speech therapist may implement intervention for speech/communication objectives and a physical therapist may implement interventions for specific motor objectives. The educator must be competent in monitoring and coordinating

the interventions conducted by other professionals. Similarly, interventions in diverse settings (e.g., group homes, schools, work, activity centers) are often assigned by an educator but carried out by para-professionals, volunteers, student teachers, parents, and peer tutors. The educator should be competent in teaching others how to carry out interventions and monitoring their performance.

Furthermore, the educator should be competent in managing learning environments. Learning environments are the settings in which educational interventions take place and include classrooms, group homes, and vocational training sites. The competencies related to learning environment management that should be demonstrated include: maintaining a clean, orderly and efficient environment; maintaining and adjusting daily and weekly schedules for educational activities; implementing health and emergency procedures; scheduling interventions implemented by paraprofessionals, volunteers, peer tutors, and ancillary personnel with specific learners; implementing seizure management procedures; collecting, recording, and filing data on learner progress; reviewing each learner's progress on, for example, a weekly basis; scheduling times to monitor interventions conducted by others; maintaining contacts with parents; scheduling and, participating in meetings; and, participating in the service plan process.

Recommendation: Professionals in training to be educators of disabled individuals should have extensive supervised practicum experiences with learners who have a wide range of handicapping conditions in a variety of different service contexts. They should gain proficiency in developing,

implementing and evaluating interventions strategies across a broad array of skills.

Advocacy for the Disabled

As a practice technique, advocacy is useful to all professionals who work with disabled individuals. Advocacy is an inclusive term which refers to an "act of pleading for, supporting, or recommending active espousal." An advocate, in turn, is "one who pleads for or in behalf of another" (Scheerenberger, 1976, pp. 151-152). Although there are many forms and types of advocacy, e.g., social advocacy (Rothman, 1979), state level advocacy programs (Bradley, 1978), legal advocacy (Scheerenberger, 1976), and citizen advocacy, the form of advocacy that is most relevant to educators in diverse settings is centered around the individual (at least initially), and thus referred to as individual advocacy. Scheerenberger (1976) has summarized the purpose of an individual in the advocate role: "The primary function of an advocate is to assist the retarded person to exercise his rights" (p. 154). The form of individual advocacy differs from citizen advocacy in that the latter usually does not include professionals acting in professional roles (Wolfensberger and Zauha, 1973).

Educators serving as individual advocates for disabled persons in diverse settings should be prepared to perform the following activities:

- Serve as a friend and companion to the individual on a one-to-one basis;

- Monitor the training programs of the individual;
- Speak on behalf of the individual with regard to any requested participation in experimental research;
- Monitor the rights of the individual defined by law; and
- Examine the personal financial accounts of the individual and raise any questions which may be appropriate (Scheerenberger, 1976, pp. 199-200).

Recommendation: Educators trained for practice with disabled individuals in diverse settings should receive preparation regarding the nature of advocacy, types of relevant activities and strategies, and should be able to demonstrate that they can effectively advocate for appropriate educational service for disabled individuals.

Knowledge Dissemination and Professional Development

Educators who serve disabled individuals in diverse settings need to be competent in providing direct services to disabled people, but must also serve as disseminators of information. These professionals may be called upon to publicize their efforts, disseminate information about services and advocate for disabled persons. To effectively share information and advocate, educators need to be skilled in written and oral communication. They must be prepared to speak to small or large groups and to write descriptions of services and programs which may be published through brochures, school newspapers, local newspapers and journals.

Public school and nonpublic school services for disabled persons have

experienced, and will likely continue to experience, developments along such dimensions as legal entitlement to services, medical services, funding sources for services, service delivery models, curriculum, and instructional technology. In order to effectively change as the field changes, an educator needs to design and implement a professional development plan. At a minimum, the professional should join professional organizations and demonstrate an ability to utilize and contribute to information dissemination networks. Educators should be able to evaluate their own strengths and weaknesses and meet their professional development needs through attending local, regional and national conferences, participating in workshops and completing advanced coursework.

Recommendation: The professional educator of disabled persons should demonstrate, prior to graduating from a training program, the ability to disseminate information about services to the disabled in written and oral form. Educators should learn to evaluate themselves and devise professional development plans.

Preparation Routes

These clusters of competencies could constitute the core of an entire training program or could be integrated into a broader based training program. Table 1 illustrates five examples of different vehicles for providing training on these competencies. The training plans represented in Table 1 are not meant to represent an exhaustive list of the possible

alternatives. Rather, the five illustrations are offered merely to emphasize that there are several different, and acceptable, routes to the same end point. Individual institutions will need to decide which of these, or others that they devise, are most appropriate for their particular circumstances.

See Table I

Routes A and B illustrate training in the competencies through traditional undergraduate, degree formats. Route A would lead to a degree specifically in educating disabled individuals in diverse settings. In contrast, students in Route B would receive their degree in, for example, elementary education, with a concentration or specialization in educating disabled individuals in diverse settings. Preparation Routes C and D would utilize the competencies as the complete core of an inservice, non-degree training program. Route C would be structured through a sequence of continuing education course work offered for college credit while Route D would involve service agencies providing inservice training on the competencies for their staff without linking the training to the granting of college credit. The last plan, Route E, illustrates how the competency clusters could be linked to a Masters Degree Program. The Masters Degree Program would include training on certain advanced competencies that go beyond the seven basic competency clusters presented above -- these would include such areas as leadership skills, administration, counseling and research methodology. To receive the Masters Degree, students would have to demonstrate their acquisition of the seven basic competency clusters

Table 1

PREPARATION ROUTES

	A	B	C	D	E
CHARACTERISTICS	undergraduate broad-based	undergraduate intensive	non-degree certificate	non-degree on-the-job	graduate leadership preparation
ENTRY REQUIREMENTS	college enrollment	college enrollment	course enrollment	career placement	bachelor's degree basic competencies professional experience
EXIT CREDENTIALS	bachelor's degree	bachelor's degree	college certificate	career advancement	master's degree
EXIT COMPETENCIES	basic	basic	basic	basic	basic and advanced
TYPICAL FORMAT	preservice college courses	preservice college courses	preservice or inservice college courses	inservice staff development	preservice or inservice courses
CREDIT FOR EXPERIENCE OPTION	no	no	yes	does not apply	no

plus a set of more advanced skills and knowledge.

The attainment of the competencies should be linked, we believe, to some form of professional certification and/or career advancement. Routes A and B and E, for example, are immersed in programs of study leading to the awarding of a degree. Students in Routes A and B who demonstrate the competencies in classroom settings can apply the coursework toward certification as a special education teacher. Similarly, students who demonstrate the competencies in other settings could earn a different type of professional certification -- perhaps as a mental retardation or developmental disabilities specialist. Students in Routes C and D could have the acquisition and/or career advancement linked to completion of the competencies. Community service agencies could link the demonstration of the competencies to advancement through a career ladder within the agency. In the following narrative example, the preparation routes are described in more detail.

Route A: An Undergraduate Degree Alternative

Route A would require four years of undergraduate study. The program of study would include a core of courses constituting a major in educational services for disabled persons in diverse settings. The core courses of the program would be augmented by foundational courses drawn from the social, behavioral and health sciences. Foundational and core courses would be offered in an integrated sequence across the four year period.

It is most likely that a college of education would provide the

administrative home for this broad based program of study, since provision of educational service is the ultimate professional preparation goal. But it is conceivable, depending upon faculty and fiscal resources, that a non-education unit could assume administrative and advising responsibilities for this broad based program. Another school, college or department engaged in preparing human service professionals may be the more appropriate unit to house the major on a given campus. Programs which prepare social workers or allied health professionals are examples of units which have compatible service goals and may therefore be appropriate units through which this major could be offered.

The major advantage of Route A is that it allows the student to develop a broad foundational base in the social, behavioral and/or health sciences concurrent with preparation for professional work. The student would begin the freshman year with a professional goal and a prescribed four year program of study through which basic professional competencies could be acquired. At the same time the student would be advised to select foundational courses that would strengthen and extend generic knowledge in one of several related disciplines.

Critical to the success of Route A is the availability of appropriate foundational courses and ongoing intensive advisement. The availability of courses would be contingent upon: (1) the presence of multiple, related disciplines on the campus, (2) the willingness of faculty from those disciplines to admit students from Route A into their courses; and (3) the ability of faculty from different disciplines to adapt their courses to the needs and interests of students from this plan. Student advisement would then be a critical component in the learning process that would integrate

the foundational studies courses with the major studies.

Route B: A Specialization or Second Major Alternative

Undergraduate students taking Route B would study educational services for disabled persons in diverse settings as a second major, a concentration, or a specialization. For example, students majoring in elementary or secondary education would fulfill all the requirements of their major and, additionally, take the necessary courses to acquire the basic competencies outlined earlier. Students majoring in a noneducation field such as psychology, sociology, social work or one of the allied health professions might also pursue as a specialization the area of educational services for disabled persons in diverse settings.

Route B offers the advantage of being less disruptive to the college administrative structure than Route A. The ultimate magnitude of the disruption, however, will depend upon the prior existence and accessibility of courses that would help students acquire the desired competencies. Although some adaptation of existing courses and/or the development of new courses would probably be necessary in even the most ideal of circumstances, the relative extent of such development will vary from campus to campus.

A limitation of Route B is that it may severely reduce the flexibility of students to choose courses. Since both areas of study would be prescribed by a set sequence of distinct course requirements, the student would be left with relatively few opportunities for individually selected electives.

Route C: An Adult, Continuing Education Alternative

Route C would consist of a sequence of undergraduate level courses offered at convenient times and places for adult students. The sequence would require approximately one year of full time study or several years of part time study.

A unique feature of Route C could be the option of obtaining college credit for prior experience. If the student could document a satisfactory level of knowledge and performance in one or more of the required clusters, credit would be given for those competencies, thus reducing the preparation time and cost for the student. Documentation of prior experience would be accomplished through an extended period of faculty advisement in which students would identify and document areas of competence. A portfolio containing the documentation would be reviewed and judged by a committee of faculty. Coursework would not be required in those subject matter areas where competence had been demonstrated.

The program of study could be administered by the continuing education division of a college or university in cooperation with the participating academic departments. As with Routes A and B, one department would be responsible for coordination of coursework and student advisement.

Upon the successful completion of the program, students would receive a certificate of competence from the college or university. Graduates of the certificate program would be judged competent to deliver educational services for disabled persons in diverse settings.

The major advantage of Route C is its exclusive focus on the basic competency clusters through its competency-based courses and the credit for

experience option. This focus on specific competencies will be viewed by some as a disadvantage because it does not include foundational or supplementary courses that result in a more "well-rounded" professional.

Route D: An In-Service Alternative

Route D is an alternative designed for the already employed provider of educational services for disabled persons. In this scenario, the employing agency sponsors and administers staff development programs that are designed to either (1) upgrade the competencies of workers for their current positions; or (2) prepare workers for another position in the same agency.

The employing agency might contract with a college or university to provide assistance with the staff development programs. This assistance might take several forms; developing competencies for specific job functions, assessing performance relative to the competencies and/or conducting training sessions which includes guided "on-the-job" practice.

Route D is more job related than the earlier degree and certificate plans that were described. For the working participant, job security may be directly contingent upon participation in the staff development activities. Route D is, at the same time, less reliant upon a college or university. In fact, a contract with an institution of higher education might include the training of agency employed trainers who would carry out the training independent of the college or university.

An advantage of Route D is its potential for collaboration between the college and the practice community. This collaboration could serve to

strengthen agency based staff development activities. A disadvantage of Route D, as in Route C, is its exclusive focus on skills training, with little or no opportunity to acquire related knowledge and skills that might strengthen and supplement the targeted basic competencies.

Route E: A Graduate Program Alternative

Route E presumes either prior acquisition of the basic competency clusters (through Routes A, B, C or D) or the willingness to acquire these competencies before the awarding of the graduate degree. The focus of Route E is on the acquisition of the basic competencies plus advanced leadership competencies related to the administrative, counseling and consulting functions of providing services for disabled persons in diverse settings.

Like Routes A, B and C, Route E would draw its faculty from several different academic departments but would be administered by one unit. Appropriate areas of study could include counseling, special education, psychology or social work. The advanced competencies would be intergrated into the graduate coursework, practicum and thesis requirements of the degree.

Route E allows full implementation of a "trainer of trainers" model through (1) the prerequisite requirement of direct service competence and experience; and (2) the development of competencies that will allow the graduate to provide "on-the-job" training for direct service providers. The graduate of Route E would have expertise and experience as both a direct service provider and as a trainer of direct service providers.

Implications for Schools, Colleges and Departments of Education

In this section the discussion will focus on a few of the many implications which this proposal may have for schools, colleges and departments of Education (SCDEs). The section is intended to stimulate dialogue on the many challenges and obstacles that exist in creating a program to train transdisciplinary professionals to serve the disabled.

In earlier sections we argued that professionals who serve disabled individuals must be prepared to function successfully in a wide array of organizational settings and structures. To this end, we noted the significance of the philosophy and knowledge bases which might undergird such preparation; and, we presented in more detail seven competency clusters which articualted the generic knowledge and skills we deemed necessary for effective practice. Finally, we illustrated several alternative formats for implementing the program goals and competencies, with brief references to the advantages and limitations of the different program formats.

The practice which we advocate utilizes a transdisciplinary approach. We view this as a logical extention of some major trends, rather than a "paradigm shift." To be successful, our model depends upon the collaboration of several disciplines. This collaboration is essential whether the graduates of the proposed program are employed in school or non-school settings. Regardless of the eventual place of employment, or the training site, we believe that the professional should develop a transdisciplinary mode of operation.

Team work has been advocated for many years in approaching the needs of disabled individuals. The multidisciplinary approach was an early

attempt at this, with professionals from different disciplines evaluating a disabled person and providing an initial report. This process, however, often resulted in a fragmented portrait of the handicapped person -- each part had value, but too often no total image emerged.

As a consequence, an interdisciplinary approach was developed, that introduced elements of a group process. After the initial, multi-disciplinary evaluation, group decision-making with regard to the treatment approach, intervention, or other necessary services became a valuable means for arriving at a more integrated understanding of the needs of the individual and how to meet those needs. However, frequently the recommendations of this interdisciplinary process were to be carried out by an individual classroom teacher or other professional who did not have sufficient knowledge and understanding of all of the contributing perspectives. In a sense, then, a whole picture of the services needed for a person was developed, but without the professional "personnel" to transform the rhetoric into practice.

Thus, some professionals have began to proport a transdisciplinary approach. In explaining the advantages of this strategy over the multidisciplinary and interdisciplinary approaches, Hart (1977) stated:

> In an attempt to reduce the compartmentalization and fragmentizing of services... one person is appointed for direct contact. This reduces the number of professionals involved in direct care. The approach ... may use an interdisciplinary approach in making the initial plan for implementation. However, implementation is carried out by only one of the members in cooperation with the others. (p. 393)

Beyond this, we contend that the key person must possess competencies which "transcend" all of the disciplines that are involved in the treatment. The competencies first center upon the needs of the disabled person; second, upon the implementation of programs in unique social settings; and, then, draw upon the disciplines. The disciplines become, thus, what they properly should be: tools for a greater good. The positive advantages of the multidisciplinary and interdisciplinary approaches are maintained, but the weaknesses of these latter two models are recognized and accounted for in the transdisciplinary model.

This approach is not, however, without problems. Considerable sharing of professional knowledge and appropriate skills needs to occur. As a result of this proposal broad-based training program, the issues of the generalist vs. the specialist arise.

Our approach to this issue has been to attempt a synthesis -- presently conceptualized in social work as the "person-in-environment" configuration. The professional we anticipate is a "generalist with specialized skills" -- the skills component is built into the cluster of competencies. This does not mean a "Jack-of-all-Trades, Master of None." We imagine generalist practitioners who "possess a distinctive way of thinking about social phenomena. He or she must be able to see the interconnections and patterns of relationships within and between social systems and make interventions according to that assessment" (Irey, 1980, p. 391).

On another level, our proposal raises the issue of professional turf. Obviously the professionals who would be trained in these competencies would be providing services beyond "education" in the traditional sense.

Watkins (1982) has stated that:

> A growing number of administrators and faculty members are concerned that by adding such "human service" programs, schools, colleges, and departments of education will damage traditional teacher preparation, in part by forcing faculty members to teach subjects they don't know anything about (p. 9).

Further, the training itself would be subject to questions about which departments or agencies would possess the authority for various decisions and responsibilities. We also know that neighboring institutions of higher education are concerned with duplication and, thus, increased competition in a tightening market. Other issues of professional turf arise from disciplines and professions with their own program -- e.g., psychology, social work, and even special education on some campuses.

However, one of the strengths of this proposal is its flexibility. Depending upon the individual campus, this program could be housed in several administrative structures, e.g., Colleges of Human Ecology, Colleges of Education, or Colleges of Human Sciences. Obviously, the location of the program would affect the underlying philosophy of the educational program and the product would be altered accordingly. We believe that these potential difficulties could be handled through the non-degree design that has been proposed.

We will be pleased if this monograph stimulates intelligent discussion and research toward the goal of providing the best possible education for professionals who serve disabled individuals in diverse settings. We await further dialogue.

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